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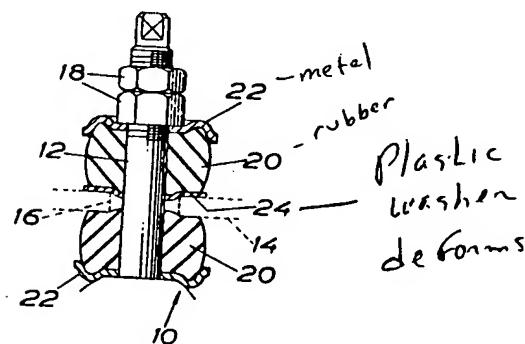
SB 1209095  
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1 SHEET

PROVISIONAL SPECIFICATION

This drawing is a reproduction of  
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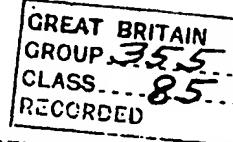
# PATENT SPECIFICATION

1209095

(11) 1209095

DRAWINGS ATTACHED

- (21) Application No. 38162/68 (22) Filed 9 Aug. 1968
- (23) Complete Specification filed 31 July 1969
- (45) Complete Specification published 14 Oct. 1970
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## (54) IMPROVEMENTS IN AND RELATING TO COMPONENT MOUNTING ASSEMBLIES

(71) W<sup>c</sup>, ARMSTRONG PATENTS CO. LTD.  
LIMITED, a British Company, of Bucklersbury  
House, Bucklersbury, London, E.C.4., do hereby  
declare the invention, for which we pray  
that a patent may be granted to us, and the  
method by which it is to be performed, to  
be particularly described in and by the following statement:—

5 This invention concerns mounting assemblies for attaching one article to another in conditions where the attachment may be subject to vibration. The invention is useful, for example, in the mounting of vehicle components on a vehicle frame or chassis, particularly in securing components such as vehicle shock absorbers to the vehicle frame.

10 In one method of securing some types of vehicle shock absorbers to a vehicle frame, the shock absorber is provided at one end with a stud intended to pass through a hole in the frame and threaded at its free end to accept securing nuts. The stud carries rubber buffers or washers of substantial thickness for cushioning the stud relative to the vehicle frame and generally each rubber buffer is sandwiched between a pair of metal washers which provide abutment faces for contacting a vehicle frame, for the securing nuts and for engaging some co-operating region of the shock absorber itself.

15 However, it may sometimes happen that under conditions of severe and sustained vibration over a long period, the individual elements of a fastening such as that described may work slightly loose and in that event it can happen that the stud occasionally rattles against the sides of the hole in the vehicle frame through which it passes.

20 The invention seeks to provide a component mounting assembly which will avoid this disadvantage.

According to the present invention, a mounting assembly for a component presenting a threaded stud intended to pass through a hole in a mounting plate or equivalent

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member, comprises a pair of elastomeric buffers positioned on the stud, one each side of said hole, a rigid washer between said component and the buffer nearest to it and between the other buffer and one or more fastening nuts engaged on the stud, and a yieldable washer of plastics material interposed between the mounting plate or equivalent member and the adjacent face of one of the buffers, the yieldable washer having a stud receiving aperture of lesser diameter than that of said hole.

25 The component mounting assembly provided by the invention thus ensures that, when the securing nuts are tightened, the plastics washer deforms as the elastomeric buffers are compressed and enters the hole by which the stud passes through the mounting plate to constitute a non-metallic surround to the portion of the stud within that hole. This arrangement both acts to centre the stud relative to the hole and eliminates possible rattles by preventing metal-to-metal contact between the stud and the mounting plate.

30 Preferably the plastics washer is a tight fit around the mounting stud. Conveniently it is made of a material such as a polyurethane rubber which is resistant to abrasion and cutting.

The invention will be described further, by way of example, with reference to the drawing which accompanies the provisional specification and which is a diagrammatic sectional elevation of a stud mounting embodying the invention.

35 In the drawing, a component generally designated 10 which is to be mounted on a plate 14 is provided with a stud 12 intended to pass through a hole 16 in the plate 14 and which is threaded at its free end to accept fastening nuts generally designated 18. On each side of the plate 14, the stud 12 carries a rubber buffer 20, and a metal washer 22 is interposed between each buffer 20 and the component 10 or the fastening nuts 18 respectively.

40 Between the upper buffer 20 as viewed in the drawing and the mounting plate 14 there

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- 2 is arranged a deformable washer 24 of polyurethane rubber, the washer 24 being a tight fit on the stud 12 and having an external diameter substantially greater than that of the hole 16 to ensure that the periphery of the washer 24 extends radially beyond the buffer 20. When the several members comprising the stud mounting are assembled and the nuts 18 are tightened, the rubber buffers 20 are compressed 10 and the washer 24, at its central region, enters the hole 16 whilst still gripping the stud 12 and therefore both serves to centralise the stud 12 and the hole and also interposes a non-metallic barrier between the stud and the walls 15 of the hole.
- WHAT WE CLAIM IS:—
1. A mounting assembly for a component having a threaded stud intended to pass through a hole in a mounting plate or equivalent member, comprising a pair of elastomeric buffers positioned on the stud, one each side of said hole, a rigid washer between said component and its adjacent buffer and between said other buffer and one or more fastening nuts engaged on the stud, and a yieldable washer of plastics material interposed between the mounting plate or equivalent member and the adjacent face of one of the buffers, the yieldable washer having a stud receiving aperture of lesser diameter than that of said hole. 30
  2. An assembly as claimed in claim 1 in which the yieldable washer is formed of a plastics material such as a polyurethane rubber which is resistant to abrasion and cutting. 35
  3. An assembly as claimed in claim 1 or claim 2 in which the stud receiving aperture in the yieldable washer has such a diameter as to cause the yieldable washer to be a tight fit on the stud. 40
  4. An assembly as claimed in any of claims 1 to 3 in which the yieldable washer has an external diameter such that the periphery of the yieldable washer extends beyond the periphery of the adjacent buffer. 45
  5. A mounting assembly for a component having a threaded stud intended to pass through a hole in a mounting plate or equivalent member constructed substantially as hereinbefore described with reference to and as illustrated in the drawings accompanying the provisional specification. 50

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